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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,057	03/11/2004	Hyun-kwon Chung	1293.1691C3	4695
49455	7590	08/24/2005	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			STEVENS, ROBERT	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/797,057	CHUNG ET AL.
	Examiner Robert M. Stevens	Art Unit 2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 05 August 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. 10/384063.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/11/04, 5/10/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Claims 1-15 are pending in Application No. 10/797,057, entitled "Reproducing Method and Apparatus for Interactive Mode Using Markup Documents", filed as a continuation on 3/11/2004 by Chung et al. Claims 1, 8 and 11 are independent.
  
2. The Office acknowledges Information Disclosure Statements filed 3/11/2004 and 5/10/2004. The Office, however, did not consider the Japanese Patent documents because neither the documents nor their English translations (or translated abstracts) were provided.

***Priority***

3. This application relies upon three applications, foreign filed in Korea as applications numbered: 2002-12728 (3/9/2002), 2002-31069 (6/3/2002) and 2002-70014 (11/12/2002).
  
4. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

***Office Comments***

5. The Office notes that the claims contain terminology that is not what one skilled in the art would employ. For instance, claim 2 recites a "preloading process", which is

actually a “loading process”, and a “loading process” which is actually a “rendering process”.

***Specification***

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 12-15 recite the terminology “computer-readable medium”, which is not found within the specification.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 1-7 and 12-15 are rejected under 35 U.S.C. 101** because the claimed invention is directed to non-statutory subject matter.

**Regarding independent claim 1:** The claim reads on a mental process that could be carried out using paper and pencil. Therefore, the claimed invention is directed to subject matter that is not within the technological arts. As such, this raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine, which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory

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subject matter under 35 USC 101. The claim language is directed to "dividing" a software module (i.e., a presentation engine) into submodules (i.e., submodules for implementing start, reproduction, pause and stop functions). This is essentially writing out pseudocode.

**Claims 2-7** are dependent upon claim 1, and do not add any limitations that would render the claims statutory under 35 USC 101. Therefore, these claims are likewise rejected.

**Regarding claims 12-15:** These claims recite the terminology "computer-readable medium". It appears from the definition of "machine-readable medium" provided in paragraph [0090] of the specification, that these claims are not limited to embodiments which enable the functionality of the software to be realized, since it is not believed that a propagated signal can enable functionality absent recitation of something in combination therewith to receive the signal and process it in a manner to be computer readable and executable. In other words, this claim appears to encompass an intangible embodiment (i.e., propagated signals) and is therefore not statutory under 35 USC 101.

### **Claim Rejections - 35 USC § 112**

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph,** as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Regarding independent claim 1:** This claim appears to be missing an essential element/step as the preamble mentions the producing of AV data, but the claim body does not set forth any steps resulting in AV data production. The recited method merely involves the dividing up of a presentation engine module into start, reproduction, pause and stop submodules. Since there is no nexus between the preamble (particularly as related to producing AV data) and the body of the claim, the Office has afforded the preamble no patentable weight for the purpose of further examination.

**Claims 2-7 and 12-13** are dependent upon claim 1, and therefore likewise rejected. The Office notes that claim 2 recites "loading" and "interacting" processes, but this language is merely describing the division of labor within a software subroutine. Refer back to the language of claim 1, which only recites how a presentation engine is "divided" into start, reproduce, pause and stop processing routines.

**Regarding independent claim 8:** This claim recites alternative limitations (“generating a formatting structure … or changing a formatting structure ..”) in the generating step of the method. Such construction renders the claim vague and indefinite. (I.e., Which limitation is required? Exclusive or inclusive “or”? Why/when choose one over the other?)

**Claims 9-10** are dependent upon claim 8, and therefore likewise rejected.

**Claim 14** is substantially similar to claim 8, and therefore likewise rejected.

**Regarding independent claim 11:** This claim uses the term “pulse”, which is not a standard term used by one skilled in the art when referring to media playback. It may be a typographical error. However, the Office will interpret it to mean “step” for the purposes of further examination. Applicant is asked to revisit the intended meaning of this term, as it was not explicitly defined in the specification. This term renders the claim vague and ambiguous.

**Claim 15** is dependent upon claim 11, and therefore likewise rejected.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 11 and 15 are rejected under 35 U.S.C. 102(e)** as being anticipated by Lamkin et al (US Patent Application Publication No. 2002/0088011, provisionally filed Jul. 7, 2000 and published Jul. 4, 2002, hereafter referred to as "Lamkin '011").

**Regarding independent claim 11,** Lamkin '011 further discloses:

*A method of reproducing audio and/or video (AV) data in an interactive mode using a markup document ([0123]-[0124], [0131] and [0134]), the method comprising:*

*interpreting the markup document and presenting the markup document comprising the AV data embedded therein on a screen; (Fig 2 and [0065]-[0066]) and*

*facilitating an interaction between the markup document and a user ([0131] and [0134]) thereby allowing the user to pause and/or stop the presentation of the markup document. ([0134] esp. "Pause()", "Step()", "Stop()")*

**Claim 15** is directed to a computer readable medium comprising instructions for performing the method of claim 11. As such, this claim is substantially similar to claim 11, and likewise rejected.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 1-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US Patent Application Publication No. 2002/0088011, provisionally filed Jul. 7, 2000 and published Jul. 4, 2002, hereafter referred to as "Lamkin '011") in view of Lamkin et al (US Patent Application Publication No. 2002/0078144, provisionally filed Aug. 21, 2000 and published Jun. 20, 2002, hereafter referred to as "Lamkin '144").**

**Regarding independent claim 1:**

Lamkin '011 discloses:

*A method of producing audio and/or video (AV) data in an interactive mode using a markup document ([0123]-[0124], [0131] and [0134]), the method comprising dividing an operation state of a presentation engine for reproducing ([0124] re: use of stylesheets) the markup document into a start ... ([0134] "Play()"), a reproduction ... ([0134] "Open()", such an interpretation being considered reasonable as no explicit definition of reproduction or reproduction state is found within the specification), a pause ... ([0134] "Pause()"), and a stop ... ([0134] "Stop()").*

However, Lamkin '011 does not explicitly disclose the use of the term:

... state ... state ... state ... state .

Lamkin '144, though, discloses:

... state (p. 78 "C.3.4 Still Event" pseudo code discloses use of the term "state") ... state (p. 78 "C.3.4 Still Event" pseudo code discloses use of the term "state") ... state (p. 78 "C.3.4 Still Event" pseudo code discloses use of the term "state") ... state (p. 78 "C.3.4 Still Event" pseudo code discloses use of the term "state") .

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Lamkin '144 for the benefit of Lamkin '011, because to do so would have provided one with the ability to synchronize disparate playback, as taught by Lamkin '144 in the Abstract. These references were all applicable to the same field of endeavor, i.e., XML programming.

**Regarding claim 2**, which is dependent upon claim 1, Lamkin '011 further discloses:

*wherein the reproducing state comprises:*

*a preloading process reading the markup document into a memory; ([0134] "Open()", and [0063] re: reading the HTML content, noting that "preloading" appears to be merely "loading", as one skilled in the art would use the term)*

*a loading process interpreting the markup document and loading the markup document on a screen; (Fig. 2 #210, 212 and 214, and Abstract, noting that "loading" appears to be merely "rendering", as one skilled in the art would use the term) and*

*an interacting process facilitating an interaction between the markup document and a user. (Fig. 2 #214, [0131] and [0134])*

**Regarding claim 3**, which is dependent upon claim 2, Lamkin '011 further discloses:

*wherein the reproduction state further comprises a terminating process terminating the markup document loaded on the screen. ([0134] "Close()")*

**Regarding claim 4**, which is dependent upon claim 2, Lamkin '011 further discloses:

*wherein the reproduction state further comprises a discarding process discarding the markup document remaining in the memory. ([0134] "DestroyLayer()")*

**Regarding claim 5**, which is dependent upon claim 1, Lamkin '011 further discloses:

*wherein the presentation engine temporarily stops the reproduction in the pause state. ([0134] "Pause()", it being implicit/inherent that a processing operation is temporarily stopped when paused)*

**Regarding claim 6**, which is dependent upon claim 1, Lamkin '011 further discloses:

*wherein in the pause state, the reproduction of markup resources stops, a timer in the presentation engine stops, and only events by a reproduction operation and a stop operation among user events are selectively received. ([0134] "Pause()", noting that it is inherent/implicit that when one pauses an operation that one stops that operation, and further noting that the stopping of a timer and enabling the recognition of certain events are merely a matter of low level design choice)*

**Regarding claim 7**, which is dependent upon claim 1, Lamkin '011 further discloses:

*wherein in the stop state, the reproduction of markup resources stops, a timer in the presentation engine stops, and information that is needed by the markup document and that is to be kept after the stop state is stored. ([0134] "Stop()", noting that it is inherent/implicit that when one pauses an operation that one stops that operation, and further noting that the stopping of a timer and the storing of data are merely a matter of low level design choice)*

**Claim 12** is directed to a computer readable medium comprising instructions for performing the operations of claim 1. As such, this claim is substantially similar to claim 1, and likewise rejected.

**Claim 13** is directed to a computer readable medium comprising instructions for performing the operations of claim 2. As such, this claim is substantially similar to claim 2, and likewise rejected.

15. **Claims 8-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael Morrison et al. (XML Unleashed, Sam's Publishing, Indianapolis, IN, Dec. 1999, pp. 149-153, 174-179, 184-202, 206-209, 290, 424, 427, 431-443 and 463-467, hereafter referred to as "Morrison") in view of Lamkin et al (US Patent Application Publication No. 2002/0078144, provisionally filed Aug. 21, 2000 and published Jun. 20, 2002, hereafter referred to as "Lamkin '144").**

**Regarding independent claim 8:**

Morrison discloses:

*A method of presenting a markup document in an interactive mode (p. 446 Fig. 20.7), the method comprising:*

*interpreting the markup document and generating a document object tree; (p. 207 Fig. 12.1, and p. 427 esp. 2<sup>nd</sup> paragraph under "Revisiting the XML DOM", it being well known that markup language documents such as XML or HTML are abstracted and processed as tree data structures)*

*receiving a user input and generating a first user event based on the user input; (pp. 463-467, esp. code at bottom of p. 464 for performing actions when a GUI button is selected/clicked on by a user)*

*parsing a stylesheet and generating a style rule/selector list; (p. 184 "Templates" section, and pp. 192-193 code Listing 11.4 esp. the "for-each" construct)*

*interpreting a script code that is included in the markup document; (pp. 431-443 discuss and disclose code examples employing the well known use of script code in markup language documents)*

*applying the style rule/selector list to the document tree to create a document form; (pp. 185-186 disclose the well known use of "patterns", and p. 175 "The Architecture of XSL" discusses tree processing in an XSL environment)*

*generating a formatting structure that corresponds to the document form (p. 184 "Templates" section) or changing a formatting structure according to a second user event; (p. 187 esp. "XSL:if" statement, an event being a condition, pp. 464-466, esp. code at bottom of p. 464 showing button "onclick()" event processing routines and the p. 466 rendered buttons of Fig. 21.2, and p. 175 paragraph above "The Architecture of XSL" heading discussing processing and display of XML documents)*

*rendering the markup document according to the document form; (p. 175 paragraph above "The Architecture of XSL" heading discussing processing and display of XML documents) and*

*... .*

However, Lamkin '011 does not explicitly disclose:

*... ;  
... ;  
... ;  
... ;  
... ;  
... ;  
... ;  
... ; and*

*decoding a markup resource that is linked to the markup document.*

Lamkin '144, though, discloses:

```
... ;  
... ;  
... ;  
... ;  
... ;  
... ;  
... ;  
... ; and
```

*decoding a markup resource that is linked to the markup document.*  
(Fig. 6 esp. #626)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Lamkin '144 for the benefit of Morrison, because to do so would have provided one with the ability to synchronize disparate playback, as taught by Lamkin '144 in the Abstract. These references were all applicable to the same field of endeavor, i.e., XML programming.

**Regarding claim 9**, which is dependent upon claim 8, Lamkin '011 further discloses:

*wherein a root node of all nodes of the document tree is set as a document node, wherein all texts and elements generate nodes, and wherein a processing instruction, a comment, and a document type generate a node. (p. 290 Fig. 15.1 and ensuing description, the node data being merely a matter of obvious design choice)*

**Regarding claim 10**, which is dependent upon claim 8, Lamkin '011 further discloses:

further comprising preloading the markup document into a memory. (pp. 206-207 "Processing an XML Document", noting that before you can process the markup document it must, perforce, be loaded into memory, and further noting that the claim term "preloading" has been interpreted as "loading", as previously discussed regarding claim 2 and the Office Comments section)

**Claim 14** is directed to a computer readable medium comprising instructions for performing the operations of claim 8. As such, this claim is substantially similar to claim 8, and likewise rejected.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### ***Non-patent Literature***

Hu, Michael J., et al., "Multimedia Description Framework (MDF) for Content Description of Audio/Video Documents", DL '99, Berkeley, CA, Aug. 1999, pp. 67-75 [ACM 1-58113-145-3/99/08].

North, Simon, et al., Sam's Teach Yourself XML in 21 Days, Sam's Publishing, Indianapolis, IN, Mar. 1999, pp. 97-99, 227-263, 298-305, 466-471, 474 and 477.

Auffret, Gwendal, et al., "Audiovisual-based Hypermedia Authoring: Using Structured Representations for Efficient Access to AV Documents", Hypertext '99, Darmstadt, Germany, Feb. 1999, pp. 169-178 [ACM 1-58113-064-3/99/2].

#### ***US Patent Application Publications***

van Beek et al	2003/0038796
Errico	2003/0061610
Errico et al	2002/0180774
Sull et al	2002/0069218
Day et al	2002/0194227
Sezan et al	2001/0010523

<b><i>US Patents</i></b>	
Stapel et al	6,912,538
Ambroziak	6,823,492
Valdez, Jr.	6,426,778
Eyer et al	5,982,445

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 – 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on (571) 272-4136. The current fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Additionally, the main number for Technology Center 2100 is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Stevens  
Reg. No. 47,972  
Art Unit 2176  
Date: August 19, 2005

rms

*William L. Bonham*  
WILLIAM BASHORE  
PRIMARY EXAMINER

8/17/2005